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Autumn 1998

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The Reporter is published by the Massachusetts Department of Public Health, Division of Food and Drugs, Food Protection Program and the Division of Community Sanitation. For further information on these and other topics, Food Protection Program staff may be reached by calling 617-983-6712 and Division of Community Sanitation staff may be reached by calling 617-983-6762.

This publication is sent to all Boards of Health in the Commonwealth. It is requested that a copy be circulated to all board members and interested employees. Other interested individuals and agencies may request a copy by contacting the Editor.

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Letter from the Directors:

Richard D. Waskiewicz, M. S., Division of Food and Drugs, Food Protection Program
Howard S. Wensley, M.S., C.H.O., Division of Community Sanitation



Summer and Fall are always busy days for the Division of Food and Drugs, Food Protection Program and the Division of Community Sanitation. It is during these warmer months that there is an increased risk for foodborne illnesses, and recreational camps and bathing beaches are open and operating.

This issue of THE REPORTER includes two articles presenting an overview of the “work” of food protection. The first article is the results of the annual survey of retail food protection activities of local boards of health, and the second is the annual report of the state Food Protection Program (FPP). These reports portray the scope and amount of work that inspectors, sanitarians and health agents throughout the state perform - from the routine collection of food samples from Massachusetts’ manufacturers to the embargo of illegal and unwholesome food to the investigation of foodborne illness outbreaks to the day-to-day activities of conducting routine inspections and evaluations.

Recently, there have been significant foodborne illness (FBI) outbreaks. A case study of the recent Ciguatera Fish Poisoning incident is included in this issue. Also included is the 1997 Annual Report of the Working Group on Foodborne Illness Control. If one were to review the case documents of the FBI cases, it is evident that a large number of the illnesses were the result of food contamination resulting from inadequate food handling practices. Clearly all food handlers in all settings – restaurants, retail food preparation, wholesale food manufacturing, and private home kitchens – must review safe food-handling practices and remember the four simple steps of food safety: *clean, separate, cook, and clean*.

In order to better promote food safety, the FPP has become a full partner with the University of Massachusetts Extension Service *Partners for Food Safety*. An article about the food safety education materials available through the University of Massachusetts is included on page 15.

In August 1998, a three-day training course "Food Microbiological Control" was held at the State Laboratory Institute in Jamaica Plain. Seventy people, primarily local health agents and sanitarians, completed the course. Another three-day course, "Foodborne Epidemiological Investigations," initially scheduled for November 1998 has been re-scheduled to March 9-11, 1999. If you are interested in enrolling, contact Allison Hackbarth, Division of Epidemiology and Immunization, at 617-983-6800.

During the summer, two college interns, trained by the Division of Community Sanitation, inspected 75 recreational camps. Overall, the camps smoothly passed inspection, although swimming pool operations were the greatest public health concern. It is imperative that local boards of health perform timely inspections of seasonal recreation camps in order to assure the health and safety of these facilities.

Additionally, as of January 1, 1999, all pool supervisors must meet the new requirements, *Minimum Standards for Swimming Pools, State Sanitary Code*, Ch. V, 105 CMR 435.17(2), including receiving pool operator certification. Local boards of health are strongly encouraged to remind all pool supervisors in their jurisdiction of this regulation.

The advisory committee on bathing beach quality (105 CMR 445.000, *Minimum Standards for Bathing Beaches*) will continue to review and revise these regulations with the goal of presenting proposed amendments in Winter 1999.

Ellen Gould, formerly of the Watertown Health Department has joined the Food Protection Program's Local Health and Retail Food Safety Unit as a Senior Food Inspector. Jana Ferguson, formerly of the Childhood Lead Poisoning Prevention Program, has joined the Division of Community Sanitation, as Assistant Director. Joel Hollis will be headquartered in the Central Regional Health Office in West Boylston: 508-792-7880. There is no change in his duties and responsibilities.

Finally, the Division of Community Sanitation is developing a survey to gather information about bathing beach water quality. The survey will be distributed by mail, and will also be available on the Department of Public Health Internet HomePage. Data collected from the survey will be used in writing the revisions to 105 CMR 445.000. ❖

Ciguatera Fish Poisoning from Barracuda

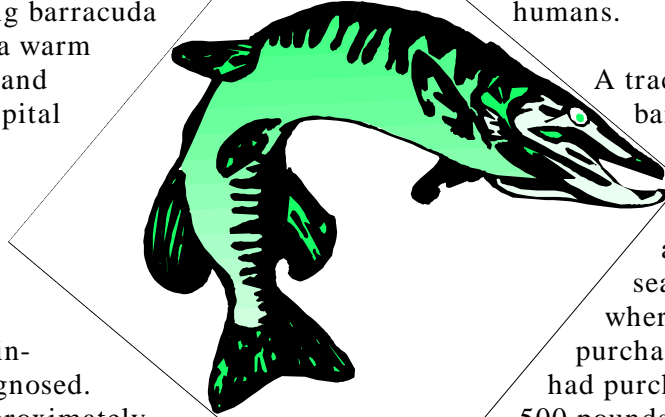
Priscilla Neves, R.S

A physician notified the Massachusetts Department of Public Health Division of Food and Drugs (DFD) of four family members who, after eating barracuda (*Sphyraena barracuda*), a warm water finfish, became ill and were transported to a hospital emergency room and admitted. Based on the symptoms of nausea, diarrhea, vomiting, abdominal cramps, perioral paresthesia and tingling of fingers, a toxin-mediated illness was diagnosed. The symptoms began approximately two hours after eating the fish, barracuda which was purchased from a mobile seafood vendor and prepared at home.

Leftover cooked barracuda samples from the family were collected by the Brockton Health Department. In addition, the Health Department staff also collected raw barracuda purchased by another family member on the same day from the same mobile seafood vendor. The mobile seafood vendor, when contacted by the Massachusetts DFD Food Protection Program, produced additional raw barracuda samples which had been purchased from a wholesale seafood dealer at the same time as the suspect fish. All of the samples were delivered by the Brockton Health Department to the Division of Food and Drugs which mailed the fish to the Food and Drug Administration (FDA) Seafood Laboratory for analysis.

FDA's analysis revealed high levels of ciguatera toxin in the two of the samples: the complainant's leftover samples and in the raw sample purchased by the other family member. FDA estimated that the dosages ingested by the ill persons ranged from approximately 882 to 936 nanograms. Based on the previous ciguatera case samples, the

FDA has found that a total dosage as low as 50-100 nanograms is sufficient to elicit signs of ciguatera toxicity in humans.



A traceback of the barracuda by the DFD led the investigation from the mobile seafood vendor to a Boston wholesale seafood distributor, where the fish had been purchased. The distributor had purchased approximately 500 pounds from a seafood wholesale dealer in Florida. Both the mobile seafood vendor and the Boston wholesale distributor were not aware of any other customer illness

complaints. According to the Boston distributor, the Florida distributor was operating with an approved Hazard Analysis Critical Control Point (HACCP) plan as required by FDA. The source of barracuda from the Florida seafood distributor has not yet been identified by FDA.

Barracuda is a ciguatoxin assimilating predator reef finfish from warm waters. Barracuda and other ciguatoxin-producing species, from south Florida, Bahamian and Caribbean waters, can become contaminated by accumulating naturally-occurring toxins.

Ciguatoxin is a tasteless, heat-stable toxin that cannot be destroyed by ordinary cooking methods. Symptoms of ciguatoxin fish poisoning (CFP) can include gastrointestinal, neurological and cardiovascular disorders. After consuming contaminated fish, the onset of symptoms usually occurs within six hours. Symptoms can include perioral numbness and tingling (paresthesia) which can spread to the extremities, vomiting, diarrhea, body and muscle aches, headaches, temperature-

sensory reversal, acute sensitivity to temperature extremes, vertigo, muscular weakness, arrhythmia, bradycardia or tachycardia and reduced blood pressure.

CFP is usually self-limiting, often disappearing within days of the onset. However, in severe cases, the neurological symptoms can continue from weeks to months. There have been cases in which symptoms have lasted for years and, some cases with symptoms reoccurring several months or years later in patients who had assumed to be recovered. This reoccurrence is because ciguatoxin is fat soluble and can be stored in the body.

In addition, there is a low incidence of death resulting from respiratory and cardiovascular failure. No specific, effective treatment for CFP has been proved and supportive treatment is based on symptoms.

Ciguatoxin is a naturally occurring toxin in select marine environments and should be considered a significant hazard. Other ciguatoxin producing fish from the south Florida, Bahamian and Caribbean regions include amberjack, horse-eye jack, large jack, other large species of jack, king mackerel, large groupers, and snappers. Since contamination occurs at the source, it is critical that the fish be harvested in safe waters.

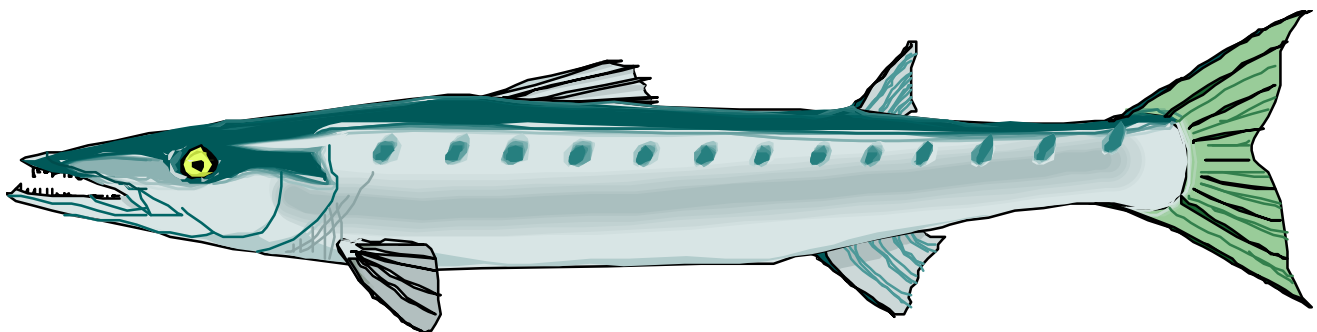
Presently, there is no federal water classification system similar to the molluscan shellfish system which would aid in the controlling of CFP in finfish. Some states, however, issue advisories regarding reefs

that are known to be toxic. In the absence of such advisories, fishermen, wholesale dealers and processors must depend on their own knowledge about the safety of the reefs.

While most commercial fishermen may be alert to advisories and avoid toxic reefs, sports fishermen, who are allowed to sell their catch to distributors, processors and retailers may be unaware or neglect such warnings. According to FDA, there are no known validated rapid methods for shipboard, dockside or commercial testing of ciguatera toxin in fish.

Seafood dealers, processors and retailers should be familiar with species which may harbor ciguatoxin, and take necessary preventive measures. Such measures include purchasing fish from areas in which a CFP advisory has not been issued or from areas in which CFP is not known to be problem. Seafood distributors, processors and retailers who buy directly from fishermen or from another dealer should request catch records for every lot received. Lots without documentation should be rejected, and records which document the harvest date should be maintained. Upon inquiry, consumers should be advised of the potential risks associated with eating barracuda and other ciguatera species.

Since the DFD became involved in Brockton case, the Division DFD has been informed that even two months later, many of the family members were still experiencing symptoms of Ciguatoxin Fish Poisoning. ❖



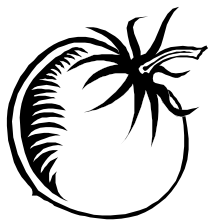
Calendar Year 1997 Summary of the WGFIG

Emily L. Harvey, R.S.

Division of Epidemiology and Immunization

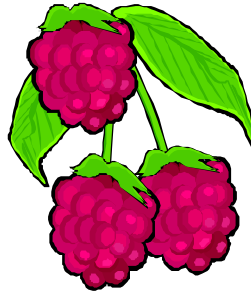
The following charts summarize the Working Group on Foodborne Illness Control's (WGFIG) disease investigation efforts for the calendar year 1997. This is the first time the new epiinfo-based foodborne database system was used. As we become more familiar with it we will be able to perform many more useful analyses. This is also the first summary conducted since the publication of *The Foodborne Illness Investigation and Control Reference Manual*, a combined effort of the members of the WGFIG, spearheaded by Allison Hackbarth. It will be interesting to watch how the use of the manual by the local boards of health will impact on the group's work. We will also be able to track the numbers of boards of health reporting foodborne illness incidents through the use of the new *Foodborne Illness Complaint Worksheet*.

Noted 1997 cases include an outbreak of Enterotoxigenic *Escherichia coli* (ETEC). Often called "traveler's diarrhea" in those people returning from abroad, ETEC has rarely been implicated as a source of illness in the United States



However, after attending a conference at a Massachusetts resort, a cluster of 30 of the 137 exposed attendees, developed symptoms of profuse watery diarrhea, abdominal cramps, nausea and vomiting. Five of the six stool specimens analyzed at the federal Centers for disease Control and Prevention (CDC) were positive for ETEC. Epidemiologic analysis pointed to a boxed take-out dinner which was strongly correlated to illness. The people who ate the tomato-mozzarella salad from that meal were six times more likely to become ill than those who did not eat the salad.

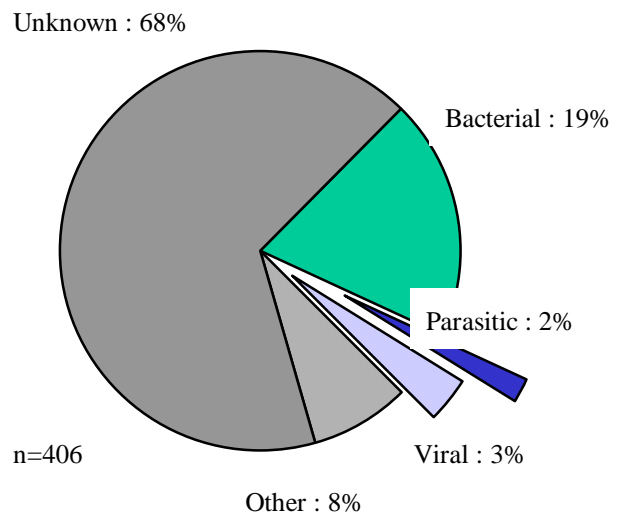
In April 1997, a laboratory-based Cyclospora Surveillance System was developed between the



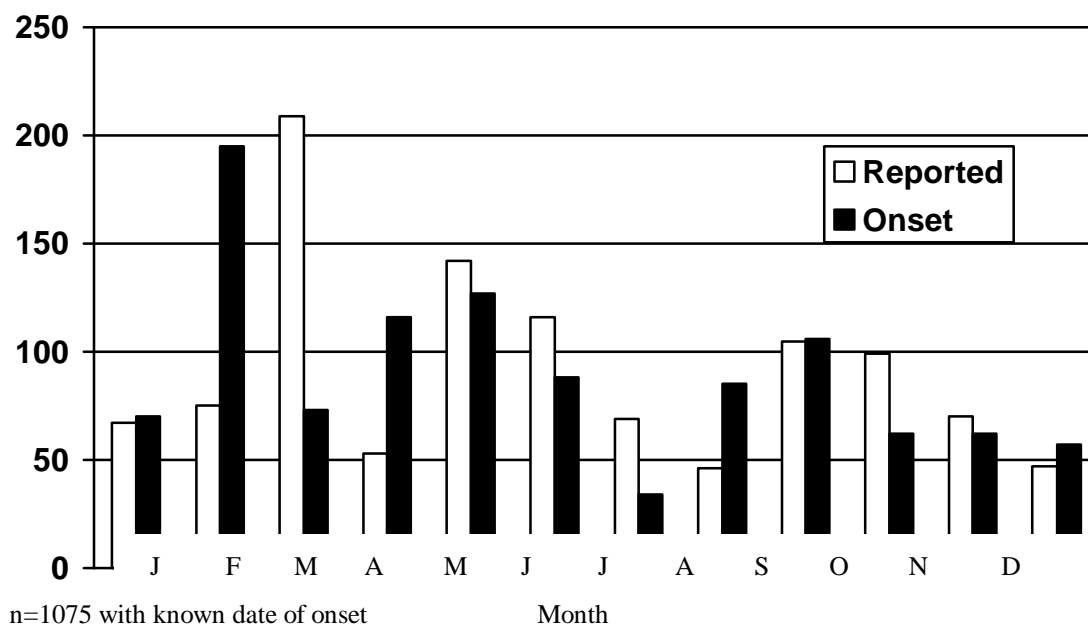
CDC and nine states, including Massachusetts. Five sentinel laboratories reported Cyclospora cases to the Division of Epidemiology and Immunization on a weekly basis from April through the end of September.

Of the 113 lab-confirmed and probable Cyclospora cases reported in Massachusetts, 36 lab-confirmed sporadic cases and one cluster of cyclosporiasis were identified through this system. There were an additional 44 lab-confirmed sporadic cases and five clusters of cyclosporiasis identified in the state. Once again, most cases were linked to the consumption of fresh raspberry or mixed berry dishes. Food trace-backs identified berries imported from Guatemala as the probable source. ❖

Foodborne Illness Cases by Disease Category
Massachusetts: 1997



Foodborne Illness Cases by Onset Date vs. Report Date Massachusetts: 1997



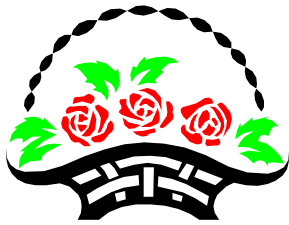
Foodborne Illness Complaints Massachusetts: 1990-1997

Month/Year	1990	1991	1992	1993	1994	1995	1996	1997
January	33	30	6	29	26	41	30	32
February	19	22	36	29	19	23	33	34
March	30	25	15	31	42	23	32	45
April	39	13	26	52	34	29	28	36
May	45	44	16	18	27	31	25	56
June	38	26	19	54	34	54	31	31
July	30	31	26	53	23	22	61	33
August	38	41	36	22	64	20	40	27
September	48	7	15	27	35	51	42	35
October	18	41	64	28	26	18	50	41
November	43	23	5	30	52	50	27	17
December	26	24	38	28	40	37	42	19
Total	407	327	302	401	422	399	441	406

Florists as Caterers?

Ellen Gould, M.P.H.

During a recent foodborne illness investigation, the Division of Food and Drugs, in conjunction with the Dartmouth and New Bedford Health Departments, identified an emerging food trend in the florist trade. Some florists are offering food items such as cheese and crackers, and fresh



fruit plates as a supplement to their floral business. This trend is especially evident at weddings and other special events which traditionally use florists *and* caterers.

There are continually new and changing trends in the retail food industry in response to consumer needs. Unbeknownst to the consumer, these developments often translate into new and changing risks. The role of health agencies is to identify these emerging trends, the accompanying risks and ensure that the proper monitoring procedures are implemented to eliminate or minimize the risks that can result in foodborne illness.

Potential problems with the florist-caterer trend may include a lack of knowledge about safe foodhandling and the lack of adequate physical and sanitary facilities to store and prepare food. There is the potential for food, which is assembled and transported with floral arrangements, to become contaminated with dirt, dirty water or florist supply chemicals.

A health agent who becomes aware of a florist-caterer establishment must ascertain that

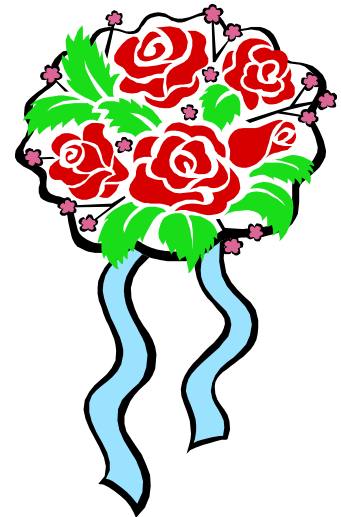
- All foods are from an approved source.
- Appropriate protection and temperature precautions must

be practiced, when foods are held and transported.

- If food is washed, cut, or otherwise handled, appropriate hand washing, utensil sanitizing, and other necessary facilities must be available at a base of operations that is licensed as a food establishment. (Floral shops and licensed residential kitchens are not acceptable as a base of operation for caterers.)

If a florist wishes to expand business to include catered food, the establishment must meet the requirements of 105 CMR 590.000 and obtain a

caterer's permit from the Local Board of Health (LBOH). The LBOH may limit each permit to specific operations and food categories. This limitation is often used to avoid the progression to more complicated and higher risk menu items.



From an operational standpoint, the florist-caterer may fall into one or both of the following categories:

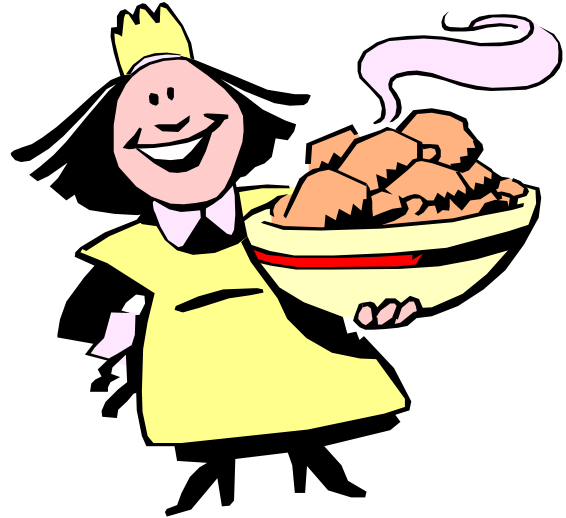
- 1) **Transporting ready-to-eat foods directly from an approved source to the event, without the need to handle any exposed food.** In this situation, the florist-caterer is merely transporting and placing out for service the fully prepared and arranged food. Since there is no handling of exposed food,



the local board of health may issue a variance for a base of operation and limit the menu items on the permit to fully-prepared foods which require no further preparation, reheating or hot holding.

- 2) **Acquiring and holding foods from an approved source, and/or preparing food prior an event, and then transporting it to the event (or) preparing food at the event in a licensed kitchen.** The base of operation must be a licensed food establishment, inspected and permitted as a catering operation, that fulfills the scope of operation. A commercial base of operation is required when issuing a caterer's permit for food preparation, regardless if the food preparation occurs at a base of operation or in a licensed kitchen at the event. It is the responsibility of the florist-caterer to assure that there are sufficient facilities available at the site for safe foodhandling and hand washing. Depending on local regulations, florist-caterers may be required to employ a manager who has obtained a food safety manager certificate.

As with all catering operations, the florist-caterer must notify the Local Board of Health in the community of the



event for which they are providing food.

If you have any questions, comments, or additional information about florist-as-caterers, contact Priscilla Neves or Ellen Gould at the Massachusetts Division of Food and Drug, Food Protection Program: 617-983-6712. ❖

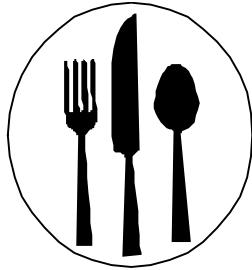


Local Board of Health Food Protection Programs: 1997

Beth Altman, M.S.W.

For the sixth year, in accordance with (105 CMR 590.051(E)), the Division of Food and Drugs has surveyed Local Boards of Health on their food protection programs. The survey questionnaire includes a variety of items, such as: address, telephone and fax numbers; staffing; number of establishments, number of inspections, local ordinances, enforcement actions, complaints, local foodborne illness investigations, training courses, and other operations. This information is intended to:

- (1) provide the Division an overview of local board of health food sanitation programs;
- (2) guide the Division in determining which communities are more likely to benefit from assistance to strengthen their programs;
- (3) evaluate the need for training; and
- (4) identify communities with special food establishment operations (e.g., water vending operations, modified atmospheric packaging, etc.)



For the 1997 reporting year, the Division received reports from 234 of the 351 cities and towns in Massachusetts - a 67% response rate, higher than last year's rate of 52%.

Establishments and Staffing

The 234 responding communities license 31,775 food establishments. When temporary food establishments (food establishments which operate in a fixed location for not more than 14 days in conjunction with a special event) are included, the total is 36,144 food establishments. The number of food establishments by community ranged from zero to 4,339 (or 5,674 including temporary food establishments.)

Prior to 1997, the U.S. Food and Drug Administration (FDA) recommended a ratio

of 150:1 - food establishments to full-time "equivalent"(FTE) food sanitarians, a ratio believed to permit a reasonable workload of inspections, investigations and enforcement activities. Fifty-nine percent of the reporting Boards of Health have ratios exceeding 150 establishments per inspector.

In 1997, 52 percent of reporting Boards of Health had fewer than 1/4 FTE (or 10 hours per week) assigned to food inspection activities. Thirteen communities reported not having a staff sanitarian, instead these communities relied upon board members or contractual employees to conduct inspections. This percent has remained consistent since 1995.

Seventy-six percent of communities reported that the FTEs in food protection activities remained stable in 1997. Several mid- to large-sized towns (35, or 15%) had increases in FTEs, but 11 communities (5%) had decreases in FTEs.

(In the 1997 Food Code, the FDA suggests that eight to ten hours be allocated per establishment per year. This would include time for inspections, follow-up, complaint investigations and administrative work. The Board of Health survey does not collect items on the time allocated to food establishment inspections and related activities, thus comparison figures are not available.)

Inspection Activities

Seventy percent of reporting communities were not able to conduct the required two inspections per year at each licensed establishment. The percentage of communities reporting both a high establishment to inspector ratio as well as an inability to complete the required inspections continues to increase each year. In 1992, the level was 25%, and in 1997, 39% (92

communities), many of them larger municipalities.

Cities and towns with insufficient numbers of staff must identify high-risk establishments as the highest priority for inspections and seek additional staff. In all communities, and especially those with staff shortages, the Division recommends that local boards of health devise inspection schedules based on risk and compliance history.

Complaints

A total of 5,324 complaints were recorded: 4,323 general complaints and 1,001 foodborne illness complaints. These numbers are comparable to the numbers reported in prior years.

Food Manager Training

Seventy-nine towns offer food manager training programs - a five percent increase from 1996. Thirty-two of the communities have mandatory training programs. Twenty communities reported using the ServeSafe training program.

Local Ordinances

Communities reported the passage of local ordinances, including: smoking bans in food establishments, food manager training/certification, mobile food units and pushcarts, temporary food service permits,

and anti-choking measures.

Specials Operations and Specific Questions

The use of standardized forms for Foodborne Illness complaints continues to grow, from 39 percent in 1995 to 49 percent in 1997. The Department's Working Group on Foodborne Illness Control is able to work more efficiently with local boards of health that use the standardized forms.

In 1997, the Division issued a revised frozen desserts policy. The policy clarifies that communities should license frozen dessert purveyors and require monthly test results on frozen desserts containing dairy ingredients. However, only 60% of the boards of health reported requiring monthly testing.

Cities and towns submitted a variety of topics and suggestions for future training programs, including: HACCP principles, inspection techniques, review of 105 CMR 590.000 and regulatory changes, reduced oxygen packaging, frozen dessert regulations, and Western Massachusetts sites for the training sessions. The Division is considering these requests in its plans for upcoming training programs.

1998 Survey

The Division will continue to use a reporting schedule based on the calendar year. If a city or town does not use calendar year for reporting (such as fiscal year), then the use of fiscal year is acceptable for the DFD survey. The 1998 survey will be mailed in March 1999, and with a return request of April 1999. ♦



What is FEAC?

Beth Altman, M.S.W.

Have you every wondered, “what is FEAC?” What does this strange acronym mean? Perhaps, a new NASA space station? Or a new toy manufacturer of small, interlocking pieces of plastic? Or a new retirement account?

No. In fact, FEAC stands for a small, hard-working group of food experts willing to advise the Massachusetts Division of Food and Drugs(DFD) on policies, new technologies, and concepts; to propose new regulations and interpretations of old ones; and to encourage the uniform application of these regulations by both the regulatory community and the food industry. FEAC stands for the Food Establishment Advisory Committee, and its members meet on a quarterly basis to accomplish these objectives and to help to assure the safety of the food supply in Massachusetts.

The Food Establishment Advisory Committee, whose regulatory citation is 105 CMR 590.063, represents a long-standing and successful example of inter-governmental and public/private cooperation. It is comprised of representatives from local, state and federal food regulatory agencies as well as the food service and retail food industry and academia. The members are appointed by the Director of the Division of Food and Drugs. Members come from boards of health and the retail industry. DFD provides research support and staffing for the committee.

The organizational members of FEAC represent the following groups:

- Massachusetts Association of Health Boards
- Massachusetts Environmental Health Association
- Massachusetts Health Officers Association
- Massachusetts Milk and Food Association
- Massachusetts Food Association
- Massachusetts Restaurant Association
- U.S. Food and Drug Administration (Northeast Regional Office)
- University of Massachusetts/Department of Environmental Health and Safety
- University of Massachusetts/Department of Food Science
- Massachusetts Department of Public Health

The breadth of discussion at each meeting is astonishingly wide. The main topic is always the interpretation and/or revision of the Massachusetts retail food regulations (105 CMR 590.000). The DFD is currently in the process of adopting large portions of federal Food and Drug Administration’s Food Code. FEAC’s role as the Division’s advisory committee is central to the process of developing a workable draft which will be submitted for public hearing.

Subcommittees of FEAC are working on proposals for food manager training/certification, new inspection forms, mobile food unit sections, and other parts of the code.

FEAC also comments on and proposes interpretations of current regulations. A review of recent items discussed include: commercial refrigeration equipment, dietary supplements, food safety in day care programs, the use of latex gloves in the food industry, requests for time/temperature variances by fast food companies, service animals in retail food and food service settings, and reports of conferences and training opportunities. These topics are introduced to FEAC by its members and by DFD staff who are contacted by boards of health and representatives of the

food industry. When necessary, interpretations (often in the form of Question and Answer sheets) are published in the THE REPORTER or distributed directly to industry, local boards and their associations.

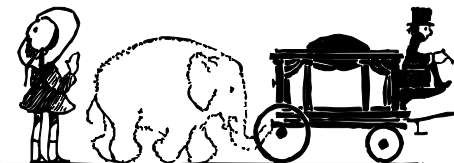
The following summaries of major projects completed by FEAC in recent years indicate the breadth and depth of the committee's work. These guidelines and proposals were completed by FEAC subcommittees composed of FEAC members and staff and other interested individuals from local boards of health and the retail food industry.

1. Temporary Food Establishments

Guideline A temporary food establishment (TFE) operates at a fixed location for not more than 14 consecutive days and in conjunction with a special event or celebration. TFE's are licensed and inspected by the local board of health. health authorities Because of the limited physical facilities and equipment, the preparation of high risk foods, and conditions which may easily lead to cross-contamination and poor temperature controls, local health authorities requested advice and direction for performing inspection and licensure. FEAC issued a guideline in 1997 to assist sanitarians in the monitoring of TFEs. The guideline included an outline of the TFE application process, a Coordinator's Check List, how to conduct an inspection, and sample cover-letters and forms.

2. Food Manager Training and

Testing Guideline The goal of food manager training and testing is to educate food managers and, ultimately, food handlers, in safe and sanitary food preparation, thus reducing the risk of foodborne illness. In 1995, FEAC proposed and the DFD adopted the Food Manager Training and Testing Guideline.



The Guideline includes qualifications for instructors, and information on course content, and alternate methods of training and administration of tests. It has been distributed to all Massachusetts communities and to industry.

As of today, food manager training and testing is not regulated by the state, although it will be part of the proposed revisions of 105 CMR 590 when Massachusetts adopts the federal Food Code.

3. Self-Service of Hot Foods in Retail Food Stores

Following a national trend, supermarkets in Massachusetts requested permission to offer self-service hot foods such as soups. State regulations currently prohibit the sale of hot bulk foods in retail food settings. This request initiated discussion about several public health issues including the inexperience of retail-level food handlers in the high-risk operations necessary for self-service of hot foods, inadequate food service equipment and the lack of monitoring by employees trained in safe food handling practices.

Since the federal Food Code permits self-service hot food operations in retail food stores, FEAC accepted a proposal for a pilot program to monitor the ability of retail markets to handle the operations. As a result of the program, retail supermarkets may now request from their local board of health a variance of the state regulation.

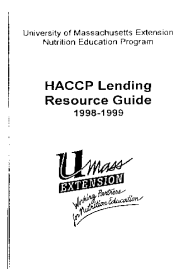
FEAC meets four times per year, and guests are welcome. If you wish to attend a meeting or to have more information about the committee, contact Beth Altman at the Division of Food and Drugs, at 617-983-6769. ❖

UMass Extension Offers Food Safety Education Materials

Brian Miller, M.S. and Rita Brennan Olson, M.S.
UMass Extension Nutrition Education Program

The University of Massachusetts Extension Nutrition Education Program, located in Amherst, offers a variety of educational programs and resources to groups and individuals that work in the food system from farm to table. The goal of the food safety education program is to increase knowledge and skills of food workers and to improve food safety practices. Target groups include child-care and school foodservice staff, elderly nutrition programs staff and volunteers, staff of shelters, pantries, and other human service agencies.

Food Safety Educational Resources for Loan *HACCP Lending Library*



This HACCP resource guide describes a variety of materials that have been produced for training food processors and retailers. These materials are available to members of the Commonwealth of Massachusetts who are interested in the safety of our food system. The types and content of these resources ranges from texts and software on basic HACCP principles for retailers and processors to elaborate implementation and monitoring systems for quality control of the food system. Items are available for loan and/or review for purchase from the publishers.

Food Safety Education Resource Directory

This directory describes current food safety education kits, audio-visual materials and other resources that are available for loan through UMass Extension. Materials reflect basic HACCP principles for preventing microbial growth through safe food handling practices.

Directories are free.

Food Safety Education Programs and Resources *ServSafe Certification Course*

ServSafe is a comprehensive food sanitation training program, developed by the National Restaurant Association (NRA). The UMass program is designed for school foodservice personnel, congregate meal-site staff, and other food workers who serve high-risk populations. On successful completion of an exam, participants receive certification from the NRA. ServSafe trainings are offered across the state during the academic year.

Food Handling is Risky Business *

This program introduces the basics of safe food practices for food workers in high-risk settings. Activities and lesson plans focus on ways to prevent bacterial growth and cross-contamination, cooking and holding foods for recommended time/temperature, and proper hygiene. Several training tools can be purchased directly from the UMass Extension Office.



Food Handling is Risky Business

Food Handling is a Risky Business Poster – an illustration of six recommendations for ways to prevent foodborne illness. Available in two sizes: 11”x17” and 7.5”x11”.

Food Handling is a Risky Business Fact Sheet-a four page color summary of critical components of food safety: detecting spoiled foods, preventing contamination, personal hygiene and preventing bacterial growth.

Food Handling is a Risky Business Training Module-lesson plans and materials for a one-hour workshop that can be adapted for food workers in a variety of settings. It includes reproducible masters, pre-and post-questionnaires, and summaries of appropriate Massachusetts regulations for child-care centers, congregate meal sites, and shelters.

Safe Food at Home *



A program designed for dietitians, staff development trainers, and direct care staff working with community-based homes for people with developmental disabilities. It helps consumers learn how to apply and adopt recommended food safety practices. Proper hand-washing and packing safe lunches are emphasized. The following **Safe Food at Home** materials are available.

Wash Hands-a four color- two sided, 8.5”x11” poster demonstrating four basic steps to proper handwashing and guidelines for hand care in food service.

Food Storage Guides-a set of two 11”x17” posters, lists recommended shelf and refrigerator/freezer storage conditions for optimum quality and safety of over 100 foods.

Safe and Healthy Bag Lunches-a single-page brochure describing how foodborne illnesses may occur and tips for packing safe and healthy lunches.

Handwashing News-this 8 minute video featuring Bob and Geri the Germ who review and demonstrate proper handwashing techniques; a brief discussion section highlights situations after which hands should be washed.

The Safe Food at Home Training Module-includes lesson plans, Safe Food at Home certificates, reproducible masters, the “Handwashing News” video, and materials to train trainers and consumers. Activities can be adapted to meet the needs of individual consumers.

** 1 to 2 hour training sessions are available to agencies and groups for these programs*

New England Small Food Processors Module

This comprehensive guidebook is designed for small-scale and home-based specialty food businesses. The packet provides tools and training materials needed by small food processors to develop specialized HACCP plans. It includes a video, lesson plans, transparency masters, sample state codes, and suggested additional resources.



Educational materials are available for a nominal fee. For more information, contact Rita Brennan Olson, M.S., University of Massachusetts, Department of Nutrition, Chenoweth Lab, Box 31420, Amherst, MA 01003-1420; Telephone: 413-545-0552; Fax: 413-545-1074; email: ritabo@nutrition.umass.edu ❖

Division of Food and Drugs Food Protection Program Annual Report FY98

Executive Summary

The Food Protection Program (FPP) of the Division of Food and Drugs (DFD) strives to ensure a safe and wholesome food supply in Massachusetts. It accomplishes this objective by conducting routine inspections and special investigations, and undertakes a variety of enforcement actions. Educational programs on compliance are provided to the food industry and local Boards of Health. Inspections and policies cover four areas: milk and dairy products; food processing; seafood; and local health programs and retail food safety operations. Inspectors are cross-trained to work in all areas of food sanitation regulation and enforcement.

In FY98, FPP staff were actively involved in the investigation of foodborne illnesses (FBI) in the State. Lengthy investigations were conducted in cooperation with the Department of Public Health Working Group on Foodborne Illness Control and local Boards of Health to determine the causative agent(s) and/or inadequate food handling practices that led to the illnesses and to prevent further contamination, survival and transmission of organisms. Of the 406 reported foodborne illness cases affecting more than 1000 people, several outbreaks were noteworthy because of the causative microorganisms, methods of food preparation and handling, and medical effect on specific populations.

In the inspection areas of seafood and dairy, the FPP participates in national programs with all other states and the U.S. Food and Drug Administration (FDA) to inspect and certify companies for interstate shipments. The states adhere to nationally-designed uniform standards for inspection and enforcement. Both the Seafood and Dairy programs were evaluated in FY98 by FDA and successfully met program criteria, thus allowing Massachusetts firms to continue to ship products in interstate commerce.

There were several voluntary closures of wholesale food processing and distribution establishments in FY98. These closures were the result of unsanitary operating conditions or defiled products held in storage for distribution. Inspectors with primary assignment to Food Processing are also actively engaged in each of the other primary field assignment areas by conducting retail seafood inspections, obtaining dairy and retail samples, and participating in foodborne illness investigations.

The Retail Food Safety staff participated in more than 20 food safety programs for local boards of health and the retail food industry. Staff concentrated on revising the Massachusetts retail food regulations by proposing to adopt large portions of the FDA Food Code, with added focus on the requiring of food manager training and modifying mobile food unit provisions.

FY98 Accomplishments

- Participated in the investigation of 406 reported foodborne illness incidents.
- Responded to 128 general product complaints.
- Co-sponsored an FDA Plan Review training program with the Massachusetts Health Officers Association and FDA.

- Met the objectives of the FDA's *Focus 98* Shellfish Evaluation Program.
- Implemented FDA's mandated Seafood HACCP Program for seafood dealers.
- Participated with adjoining states and the FDA to intercept illegally harvested shellfish.
- Computerized the collection schedule and laboratory analysis results of the more than 1600 milk samples gathered yearly.
- Successfully participated in the FDA certification program for Interstate Milk Shippers.
- Obtained voluntary or mandatory closure of several food manufacturing and distribution facilities operating under unsanitary conditions.
- Presented training programs for local Boards of Health and the retail food industry.
- Contributed to the Department's Foodborne Illness Investigation and Control Reference Manual for local boards of health released in Fall 1997.
- Participated in the development of a Foodborne Illness Investigation Data Program with the Division of Immunization and Epidemiology to track demographic, epidemiological, and environmental factors in foodborne disease outbreaks.
- Participated in interviews with news media regarding food safety.
- Revised the Good Manufacturing Practices, food processing regulations.
- Successfully fulfilled two Partnership Agreements with the FDA by conducting 123 inspections of food processors and collected 30 samples of Massachusetts produce and seafood for pesticide sampling.

Mission Statement

The primary objective of the Division of Food and Drugs, Food Protection Program is to ensure a safe and wholesome food supply in Massachusetts.

The Program accomplishes this objective by:

- Developing legislation, regulations, policies, guidelines and interpretations;
- Conducting routine inspections, including sampling and testing;
- Conducting special investigations;
- Participating in public/private initiatives;
- Developing participation in cooperative programs with other state, federal and local agencies;
- Offering educational programs; and
- Undertaking enforcement actions such as embargoes, administrative sanctions, license suspensions or revocations, and civil or criminal penalties.

The Food Protection Program operated with 19 Full Time Equivalent (FTE) managerial, policy and inspection staff in FY98. The inspection program operates has four units: Dairy Plant Inspection Unit, Food Processing, Shellfish and Seafood Unit, and Local Health and Retail Food Safety.

Summary of Food Protection Program Initiatives

Prevention of Foodborne Illness

The Division's Food Protection Program strives to reduce the incidence of foodborne illness by improving food protection standards, providing education, raising compliance levels of food manufacturers and food establishments, and investigating foodborne illness outbreaks. It works cooperatively with local boards of health, and with the Department of Public Health's Division of Epidemiology and Immunization and the State Laboratory Institute investigating outbreaks. The FPP, with members of the Working Group on Foodborne Illness Control and local boards of health, investigated 406 reported incidents of foodborne illness, affecting at least 1098 people.

With the Division of Immunization and Epidemiology and the Division of Diagnostic Laboratories, the Food Protection Program participated in the development of a Foodborne Illness Investigation Manual for local boards of health. The manual is designed to aid local boards of health in the surveillance, monitoring and investigation of foodborne disease. Procedures for conducting a HACCP risk assessment in an environmental investigation is included in the manual as well as forms and model letters which can be used in the investigation and control of a foodborne illness outbreak. FPP also cooperated with these Divisions in the development of a Foodborne Illness Investigation Data Base Program.

Several major foodborne illness outbreaks were reported in FY98. Below is a summary of these foodborne illness outbreaks:

Enterotoxigenic Escherichia coli (ETEC) - Thirty out of 137 persons attending a luncheon at a conference at a Massachusetts resort experienced profuse watery diarrhea, abdominal cramps, nausea and vomiting after eating a boxed take-out lunch. Epidemiological analysis showed that the dinner was strongly correlated to the illness and that those persons who ate the tomato-mozzarella salad from the meal were six times more likely to become ill than those who did not eat the salad. Five of the six stool specimens analyzed at the U.S. Centers for Disease Control and Prevention (CDC) were positive for ETEC. ETEC is normally associated with “traveler’s diarrhea” in persons who have traveled abroad.

Shigella sonnei - Seventy-nine customers and eight food workers were identified as cases in a *Shigella sonnei* outbreak at a Massachusetts restaurant in January. All of the patrons had eaten at the establishment during a three-day period. A potato-basil-garlic spread, served to all customers, was statistically significant. A HACCP risk assessment conducted by the local health department revealed several risk factors including advanced food preparation, bare-hand contact, improper cooling and improper cold storage. The establishment voluntarily closed until staff could be trained, food discarded and safe food-handling procedures implemented.

E.coli O157:H7 - In June several New England states reported a significant increase in the number of confirmed *E. coli* O157:H7 cases. In Massachusetts, 27 culture-confirmed cases were identified by the State Laboratory Institute between June 3 and June 24. Pulsed-field gel electrophoreses (PFGE) were conducted on 26 of the 27 isolates. Eight of the PFGE’s matched stool specimen isolates in New Hampshire and Maine as well as ground beef samples from New Hampshire and Massachusetts. Nine of the PFGE’s matched stool specimen isolates from Connecticut but not any food samples. A press release was issued on June 12, 1998, informing the public that ground beef was a suspect food. Consumers were reminded to:

- Thoroughly cook ground beef to an internal temperature of 160°F.
- Use a meat thermometer and cook until the middle is no longer pink and the juices run clear.
- Wash hands, utensils and work surfaces such as cutting boards and counter tops with soap and hot water after coming in contact with raw meat and meat juices.
- Store raw meats away from fresh fruits and vegetables in your refrigerator.
- Thoroughly wash all fruits and vegetables, including lettuce, before consumption.
- Wash hands carefully after changing diapers or using the toilet to prevent person-to-person spread of illness.

Inter-Agency Cooperation and Committees

The Food Protection Program is actively involved in several key committees: the Food Estab

lishment Advisory Committee, the Working Group on Foodborne Illness Control, a cooperative working group with the FDA and other New England States, the Massachusetts Partnership on Food Safety Education and an inter-agency effort for training and education.

The Food Establishment Advisory Committee (FEAC), consisting of federal, state and local officials, and industry and academic representatives, met three times to review and advise the Program on food establishment regulations and policy. The FEAC members discussed and offered suggestions on numerous topics including food manager training and testing, mobile food units, equipment issues, handling of specific potentially hazardous foods, and labeling of retail products. The revision of the Massachusetts retail food regulations was a major focus of FEAC during FY98. FPP staff issued interpretations of state regulations based on FEAC recommendations.

The FPP is actively involved in The Working Group on Foodborne Illness Control; a tripartite association of the DFD, the Division of Epidemiology and Immunization and the State Laboratory Institute. The group works together with local boards of health to plan the investigation of all reported foodborne illness cases. The group combines expertise in epidemiology, diagnostic analysis and field investigations to plan and investigate outbreaks thoroughly. DFD focuses on environmental issues such as sanitation, hygiene, food handling and preparation which may have contributed to an outbreak. It has successfully functioned for 16 years and is an excellent example of government agency infrastructure working together. In addition to daily updates and planning, the group meets weekly to summarize cases and evaluate strategies.

During FY98, the Food Protection Program, with representatives from other New England States, continued twice-a-year formal meetings to share information about current food safety issues, enforcement strategies, and work planning. The meetings continue to enhance cooperative enforcement initiatives, food problem awareness issues and consumer complaint information-sharing between the states and FDA. Plans were formulated to implement the Seafood HACCP inspections.

The Food Protection Program has been a full partner with the University of Massachusetts Cooperative Extension Team in Massachusetts Partnership for Food Safety Education. Along with representatives from academia, industry, and other government agencies, the mission of the Partnership is to identify food safety materials and training resources for consumers as well as industry. The Partnership will continue to evolve into an alliance that will address food safety education from farm to table.

Field Operations in the Food Protection Program

The FPP is responsible for inspecting all wholesale food manufacturing, processing and distributing establishments in the Commonwealth. Food service and retail food establishments are licensed and inspected by local boards of health according to standards and regulations developed by the Program. The routine compliance and enforcement activities of the FPP are divided among four general areas of inspection: Seafood, Dairy, Food Processing, and Retail Food Safety.

Figures 1 (see page 21) summarize the inspection and sampling activities of the FPP in FY98. The total number of inspections conducted was 2009. Inspection activities include: inspections for new licenses, routine inspections, re-inspections, and surveillance inspections. Random

Figure 1. Field Operation by Food Category - FY98

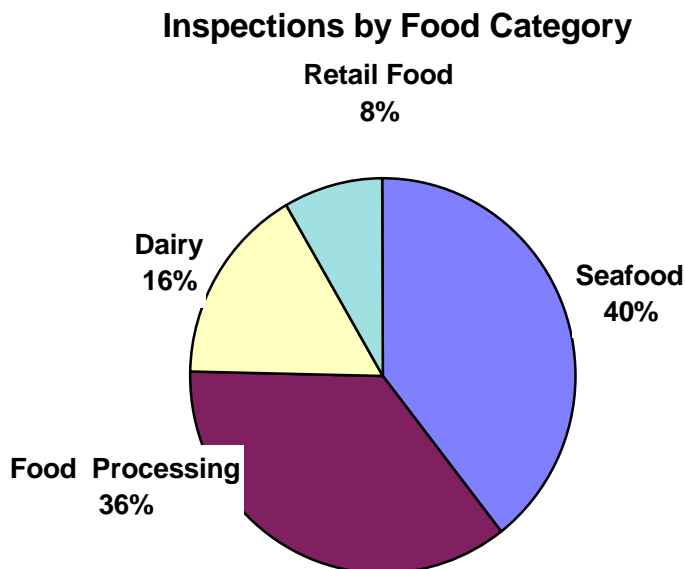


Figure 2 (page 22) summarizes information on inspection activities during the last five years.

Another major activity of the FPP is the collection of product samples. Samples are collected for the purposes of routine monitoring for compliance or as part of a foodborne illness investigation.

In FY 1998, the Food Protection Program collected 1767 product samples. In a breakdown by food area; 1654 dairy samples, 108 food manufacturer/wholesale samples, and five retail and/or seafood samples were collected. Figure 4 illustrates the food products that were sampled.

It is readily evident that dairy products are the most intensely sampled food product. Milk products are tested for bacterial counts, drug residues and pasteurization adequacy.

Figure 4 portrays the number of food complaints and foodborne illness investigations for FY94-98. The types of complaints include minor product defects, food contaminated with glass, metal, and filth, and foodborne illnesses.

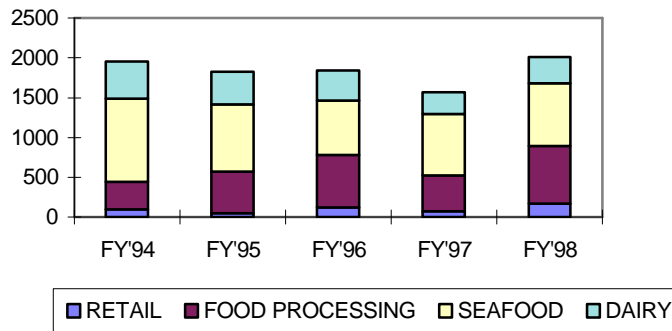
Highlights of the FY98 field operations are described below by the inspectional area.

Shellfish and Seafood Unit

The Shellfish and Seafood Unit's (SSU) primary responsibility is ensuring that firms participating in interstate commerce are certified and adhere to the requirements of the National Shellfish Sanitation Program (NSSP). The Program sets uniform national standards and enables qualified dealers to ship shellfish products in interstate commerce. The FPP, in cooperation with the Massachusetts Department of Fisheries and Wildlife, Environmental Law Enforcement's Division of Marine Fisheries, and the FDA participate in maintaining the status of the NSSP in Massachusetts.

Massachusetts has more than 150 certified shellfish dealers who are classified according to the type of operations they conduct. Only shellfish dealers (clams, oysters, mussels, and scallops in the shell) are eligible for certification.

Fig. 2. Inspections by Food Category - FY94-FY98



Annually, shellstock/shippers are inspected a minimum of twice, and shucker/packers a minimum of four times. All dealers must be recertified 120 days prior to the expiration of their current certification (January 1) for the following year. Every three years, all shellfish inspectors must be standardized through successful completion of an FDA standardization process. This process involves training, education, and joint inspection evaluations.

The SSU completed 791 shellfish and seafood inspections in FY98, which included both certified and non-certified dealers, and 173 inspections for new permits issued by the Division of Marine Fisheries for retail seafood establishments, seafood trucks, and wholesale seafood dealers. During FY98, six certified dealers were either not recertified or were removed from the Interstate Certified Shellfish Shippers List (ICSSL). These delistings were the result of the failure to meet NSSP compliance standards.

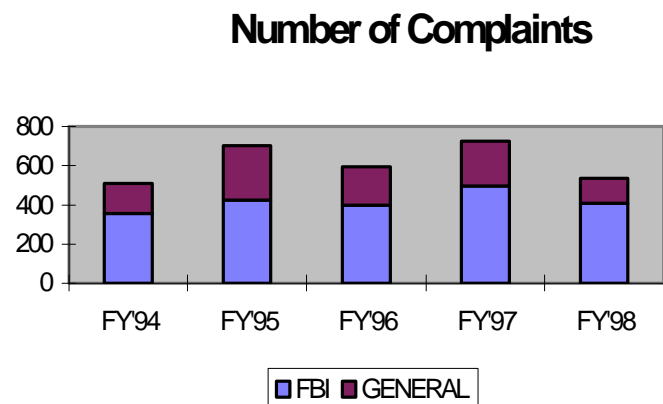
Currently, there are more than 625 wholesale shellfish/seafood dealers in Massachusetts. Many of these shellfish dealers do not participate in the NSSP. Consumer complaints for shellfish/seafood related problems and illnesses are also part of the inspectional program. The SSU currently has two full-time inspectors and 1/2 FTE staffing from other inspection units.

The SSU participated in numerous national

and regional training and education programs focusing on the NSSP and other seafood related issues. Staff participated in the Seafood Hazard Analysis Critical Control Point (HACCP) Regulator's course to become certified as regulators for the Massachusetts seafood industry. HACCP is an FDA program designed to enhance the recognition of hazards in processing that became mandatory for United States seafood processors in December 1997. HACCP inspections were implemented in January 1998 as part of our FDA joint seafood dealer inspections and for the NSSP inspections. Seventy-four Seafood HACCP inspections were performed in FY98.

The Shellfish and Seafood Unit continued to work cooperatively with other state and federal agencies on a variety of important public health issues, including: sampling and testing of shellfish for Domoic acid and PSP, both serious health threats; pesticide sampling; and executing voluntary and involuntary disposal of shellfish that which were illegally harvested, tagged and/or processed. The FPP cooperated with the FDA and surrounding states in the recall of shellfish illegally shipped across state lines. The SSU responded to complaints,

Fig. 3. Foodborne Illnesses and General Complaints FY94-FY98



and served as a witnesses for the Massachusetts Division of Environmental Law Enforcement in court cases concerned with broken embargoes of illegally processed shellfish and operating without a permit.

The SSU has recently implemented some revisions of the licensing procedures for seafood dealers with the Division of Marine Fisheries and also is currently undergoing a revision of the Massachusetts regulations, 105 CMR 533.000, in order to improve the quality and conditions that surround the seafood industry in Massachusetts.

Dairy Plant Inspection Unit

Twelve interstate milk (IMS) plants require regular inspection and certification by the Dairy Plant Inspection Unit (DPIU) Division's dairy plant inspectors to be eligible to ship products in interstate commerce. For each IMS plant, at least eight inspections and 10 sample collections are required per year under the voluntary Interstate Milk Shippers Program. This program, under the oversight of FDA's Milk Safety Branch, involves a biennial state certification of plants. The DPIU staff includes three Certified State Milk Rating Officers who perform the ratings every two years. Plants scoring 90 percent or above may ship products in interstate commerce, and these products are recognized by receiving states as being properly inspected and safe. In Massachusetts there are 13 manufacturers of single-service plastic and paper containers and closures used by the dairy industry, all of which must be listed in the IMS list and inspected twice a year by the DPIU. The remaining 40 intrastate plants which produce milk, ice cream and cheese products are inspected and sampled at least twice a year.

After in-house and FDA training, an inspection staff member was certified as a Milk Sanitation Rating Officer. All Rating officers use a standardized approach for evaluating milk plants for compliance.

The DPIU computerized the scheduling of the collection and sampling of dairy products. The computer file is shared between the DFD and the SLI, which undertakes the analysis and reports the results directly onto the file, thus providing DPIU with immediate access to all results.

The Dairy Plant Inspection Unit participated in a special National Conference on Interstate Milk Shippers (NCIMS) in October 1997. The conference focused on a new initiative known as Resolution 5. This new initiative proposes a review of all NCIMS programs and policies in order to incorporate HACCP, technological innovations, scientific changes, and world market standards and requirements.

Food Processing, Distribution and Salvage Unit

The Food Protection Program is responsible for inspecting more than 2000 food processing and distribution firms. Food processors include: general food manufacturers and distributors, bottled water and carbonated beverage companies, wholesale bakeries, commissaries, warehouses, cider producers, and manufacturers of specialty food products.

During FY98, the FPP was involved in a number of major enforcement actions that were the result of unsanitary conditions uncovered during routine inspections. These actions were taken against a wide range of food processing operations. The firms were required to cease operations and implement major corrective action plans prior to resuming business.

The unit worked with the Massachusetts Department of Food and Agriculture on commercial kitchen development plans for value-added Massachusetts-grown products and on requirements and procedures for Massachusetts growers to expand into food processing operations. In

addition, the unit provided good manufacturing practices training to cider manufacturers. Development and monitoring activities continued on the FDA/State pilot HACCP program with a Massachusetts food processor.

The Program was also involved in investigations of deficiencies in package labeling, specifically the identification of ingredients that have the potential to cause allergic, life threatening reactions. The Program is responsible for implementing the FDA's Food Sanitation Contract, a contract to perform 125 inspections of food manufacturers for the FDA.

Local Health and Retail Food Safety Unit

The Local Health and Retail Food Safety Program staff are responsible for training, evaluating and providing technical assistance to local boards of health for the enforcement of Massachusetts retail food establishment regulations in their communities. The retail food regulations, known as 105 CMR 590.000, set the state-wide standard for all retail food and food service establishments. Developed by the FPP, the regulations are enforced by local boards of health. Food Protection staff have focused on revising the retail food regulations to incorporate provisions of the federal model 1997 Food Code. The regulations, last amended in 1991, will include significant changes reflecting HACCP principles, mandatory food manager certification, and safe food-handling practices based on more comprehensive science and analytical studies.

Representatives from the Newton, Boston and Wellesley Health Departments met with the Retail Food Safety staff to revise the Mobile Food Unit/Push Cart and Temporary Food Establishment provisions in 105 CMR 590.000. These types of food operations have presented significant risk factors which need to be addressed through enforcement and administrative provisions currently not included in FDA's 1997 Food Code.

The staff met with representatives from local, state and federal food protection programs, training consultants, retail food service and institutional food service industries and the test development and training industry to identify issues about the DFD's proposed provisions for state-wide mandatory food manager training and testing. The group will be reorganized under FEAC to address the on-going issues which arise as mandatory training and testing is implemented. The group will advise the FPP Director on issues such as instructor qualification, exam approval, and language and reading barriers.

In addition, representatives from FEAC met with the Retail Food Safety staff to begin revising the food establishment inspection report form, a revision necessitated by the proposed changes in 105 CMR 590.000.

Staff responded to more than 1000 telephone inquiries in FY98. These inquiries originating from local boards of health, consumers, the food industry and other agencies concerned a wide range of issues, but primarily issues about food service and retail food store standards and practices and the enforcement of the Massachusetts regulations. Staff provided daily assistance to local Board of Health personnel, and two staff members are FDA certified as Food Program Evaluation Officers. In FY98, the Retail Food Safety Unit was comprised of 1.5 FTE. Two new staff have been added to the Division, staff who will be primarily involved in retail food activities and the investigation of foodborne illness outbreaks.

Conference for Food Protection

In April 1998, the Food Protection Program hosted the national Conference for Food Protection. This was the first time the Conference came to Massachusetts. The Conference was an assembly

of representatives from the food industry, government, academia, and consumers who joined to identify and address emerging problems of retail food safety and to formulate recommendations. In attendance were more than 400 representatives from all over the country who participated in or attended the three Council meetings that provided a balance between deliberating the impact of food related laws and regulations, developed various administrative, education and certification guidelines and procedures and discussed the science and technology of food safety issues.

One Division representative participated on Council III, which addressed and debated emerging issues in science and technology. Another Division representative participated in the group of 50 state delegates who were responsible for voting on issues which were forwarded to the FDA for formal action.

FPP staff were actively involved and formed a local arrangements committee that facilitated pre-planning and on-site arrangements for the 6-day Conference with a program that attracted the largest attendance ever.

At the opening session of the Conference, a special presentation was made by the Massachusetts State Archivist, who presented a newly conserved document, "Act Against Selling Unwholesome Provisions," the first food safety law in the United States. This document was signed by Massachusetts State Senate President Samuel Adams and Governor Thomas Cushing in 1785.

Training and Education

The Food Protection Program provided training and assistance to local boards of health; sponsored workshops for agents, sanitarians, board members, and food service industry associations. The FPP presented programs on food safety to members of the Massachusetts Health Officers Association and the Massachusetts Environmental Health Association as well as to food-service personnel. Training topics included food manager certification, HACCP, temporary food establishments, retail food establishment inspections and general food safety measures.

With the FDA, the FPP co-sponsored an in-depth course, "Plan Review." The three day course was attended by 37 state and local retail food safety officials. Food Protection Program staff contributed several articles to THE REPORTER and other food safety and environmental health publications for local boards of health on a variety of topics. Program staff also contributed to the Foodborne Illness Investigation and Control Reference Manual published by the Department of Public Health.

Communications

The Food Protection Program published two editions of THE REPORTER in FY98. The publi

cation, which includes technical and policy information on a wide variety of food subjects, is sent to the 351 local Boards of Health in the Commonwealth, as well as to a state and national mailing list comprised of medical professionals, food industry representatives, public officials and others interested in food safety and community sanitation issues.

Legislative/Regulatory Update

In the legislative arena, the Division of Food and Drugs followed and/or contributed testimony on food safety bills filed in the Massachusetts legislature. Topics of key bills included the harvesting of bait clams, citizen's right-to-know of toxic substances in consumer products, disparagement of raw agricultural and aquacultural products, labeling of produce, and certification of organically-grown food.

Complaints

The Food Protection Program processed 128 complaints, with 116 referred to local boards of health or other state and federal agencies for investigation. Complaint-types included: contamination of food products, unsanitary conditions in food establishments, and reports of food tampering. Many complaints were investigated in cooperation with the FDA, United States Department of Agriculture (USDA) and local boards of health. Consumer complaints often provide valuable information to the Program on product defects and other problems that can jeopardize consumers' health and safety.

Summer Feeding Program

The Food Protection Program conducted inspections for the statewide summer camp and feeding program sponsored by the Massachusetts Department of Education. One-hundred-and-four commissaries, on-site food preparation facilities, feeding sites and distribution networks were inspected and evaluated to ensure that required sanitation and hygienic practices were adhered to and that food was free of contamination and maintained under adequate temperature control. Correction schedules were required by 30 facilities whose sanitation practices were below compliance.



Enforcement

One of the primary enforcement tools available to the Food Protection Program is the embargo process, which is used when there is sufficient evidence to suspect adulteration or misbranding of foods. Forty-three embargoes were conducted during FY98, and there were 45 additional occurrences of the voluntary destruction of unwholesome products. More than a \$5 million dollars estimated value of unwholesome food products were disposed of under the Program's supervision. One-hundred-and-one other enforcement actions were conducted by the FPP.

Recalls

The FPP cooperated with FDA, USDA, food manufacturers and distributors to assure that food and drug products being recalled by manufacturers were removed from the Massachusetts marketplace and that Massachusetts consumers were informed of these recalls. Some of the food products recalled in FY98 included hommus, frozen desserts, processed meat products, candies, baked goods and seafood products. The hommus recall was especially significant because the product was manufactured in New Hampshire and widely distributed

in Massachusetts.

FY99 Initiatives

The Food Protection Program has planned several initiatives to implement to improve the program during FY99. These plans include:

- The process for complaint intakes, investigations, and records will continue to be analyzed and changed to improve overall accountability of the system, improve investigations and result in better records through the development of a computerized management system.
- The revision of regulations, including regulations pertaining to retail food and food service establishments, food labeling, and seafood. The FPP is planning to adopt major provisions of the 1997 Federal Food Code which is becoming the standard throughout the U.S. Training sessions will be developed to explain, interpret and implement the regulations.
- The development of a training program on FBI investigations for local boards of health in cooperation with the Massachusetts Division of Communicable Diseases and the State Laboratory Institute.
- Continuation of the implementing of the mandatory seafood industry HACCP program. The inspections will be oriented to evaluating the industry-based monitoring program for critical operating procedures.
- The dairy initiative will focus on evaluating technological advances in milk processing and pasteurization equipment to insure compliance with safety standards. ❖



Fire Department Requests for Chapter II Sanitary Code Inspections: Opinion from the General Counsel

Howard S. Wensley, M.S., C.H.O.



The Department of Public Health has been asked with increasing frequency if, upon the request of the fire department, a board of health may enter a dwelling for the purpose of conducting a sanitary code inspection and/or condemning said dwelling. The Office of the General Counsel has opined that a

board of health does not have the authority to conduct an inspection without the consent of the occupant and, in most instances, fire personnel do not generally have the authority to order the local board of health to do so. The following is a copy of that opinion:

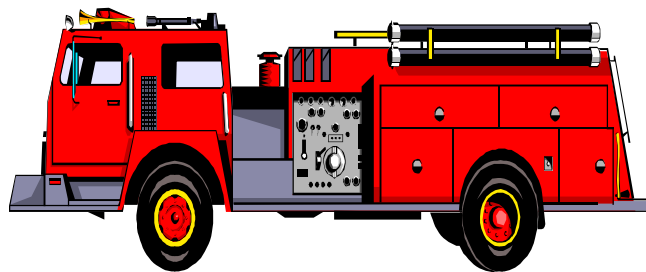
(1) Does the Fire Department regulation 527 CMR 1.103 Section 8 supersede the authority of Articles I and II of the Sanitary Code?

(2) Do the Emergency Procedures set forth in the Sanitary Code 105 CMR 400.200B allow for entry without consent of the occupant or a search warrant?

*It is my understanding that these questions arise from a situation where the fire department asks a housing inspector to enter the premises of a dwelling in order to condemn the unit as unfit following a fire or due to other conditions. It is my opinion that, in a true emergency situation, housing inspectors could be directed to assist the fire department as part of an **emergency response**. This authority is limited to **true emergency** situations and does not include the situation you discuss, i.e., entering a building to conduct an inspection for the purpose of condemning the unit as unfit. As a*

practical matter, I cannot imagine a true emergency situation requiring immediate action by the fire department, which would require the assistance of a housing inspector. A brief analysis follows.

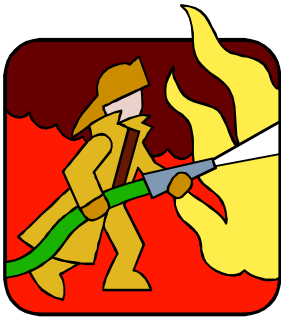
The Board of Fire Prevention regulations - Massachusetts Fire Safety Code at 527 CMR 1.03 (8) provides, in relevant part, that '[w]henver the maintenance, operation or use of any land, building or structure... constitutes a fire or explosion hazard which is dangerous or unsafe, or a menace to the public safety (including, but not limited to, fires, explosions, hazardous material incidents, motor vehicle accidents, structural collapses, mass casualty incidents and emergency extrication incidents) and the action to be taken to eliminate such dangerous or unsafe condition or conditions which create, or tend to create, the same is not specifically provided for in 527 CMR, and unless



*otherwise prohibited by law, ordinance, by-law, regulation, the head of the fire department is authorized and empowered to take such action as may be necessary to abate such dangerous or unsafe condition or conditions (**directing employees of other city or town departments and agencies**)..." It is clear from the language in this regulation that this emergency authority is to be used only in situations with extremely dangerous circumstances that, if not acted on*

the general public. The reference to “directing other agency employees” which could include housing inspectors, most probably means policemen, EMTs or other emergency personnel trained to work under extremely dangerous situations.

In all other fire inspection situations, the fire department is not allowed to conduct



inspections of dwelling units without the consent of the occupant or owner, or without a specific and properly secured search warrant. 527 CMR 1.03 (3).

Therefore, if the Fire Department intends to conduct an inspection, (with or without the assistance of a health

inspector) the fire marshal (sic), or his designee, has to first get the consent of the occupant or owner, or secure a warrant to conduct the inspection.

(Does) the Fire Department regulation allowing for emergency entry to abate dangerous conditions “supersede(s)” the provisions of the Sanitary Code which provide the authority for housing inspections and set out the procedures for inspections. The Fire Department regulation does not supersede the procedural protections afforded by the Sanitary Code. The circumstances in which the Fire Department may make requests for assistance from other agencies, departments, or personnel, are those encountered while responding to an emergency or crisis situation. In the narrow situation where an emergency exists, and in the unlikely event that a housing inspector is asked to assist, the housing inspector would be acting under the fire department’s authority and direction in conformance with 527 CMR 1.03(8). This does not constitute a “superseding” of the Sanitary Code.

(The) second question (is) whether the

emergency procedures described in 105 CMR 400.200 (B) allow for entry without the consent of the occupant or a search warrant. The procedures authorized by this section do not allow housing inspectors to conduct an inspection without consent or a warrant. This section states, in relevant part, “[w] whenever an emergency exists in which the interest of protecting the public health requires that ordinary procedures be dispensed with, the board of health or its authorized agent, acting in accordance with the provisions of M.G.L. c. 111, § 30, may without notice or hearing, issue an order reciting the existence of the emergency and requiring that such action be taken as the board of health deems necessary to meet the emergency. Notwithstanding any other provision of the State Sanitary Code, any person to whom such order is directed shall comply therewith within the time specified in the order.” This section does not authorize entry of a dwelling without consent or a warrant. Rather, this section authorizes the Board of Health to issue an order for correction of emergency conditions without following “ordinary procedures,” i.e., prior to any opportunity to request a hearing to contest the existence of the conditions. ❖

Skimming the Milk Label **Fat-Reduced Milk Products Join the Food Labeling Fold**

Paula Kurtzweil
January-Februaru 1998 FDA Consumer

Milk, that all-American food, is taking on some all-American names--like "fat free," "reduced fat" and "light."

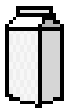
Starting January 1, 1998, the labeling of fat-reduced milk products will have to follow the same requirements the Food and Drug Administration established almost five years ago for the labeling of just about every other food reduced in fat. From now on:

2 percent milk will become known, for example, as "reduced fat" or "less fat" instead of "low fat"

1 percent milk will remain "low fat" or become, for example, "little fat" skim will retain its name or be called, for example, fat-free, zero-fat, or no-fat milk.

Also, the regulations that implement the labeling changes give dairy processors more leeway to devise new formulations. As a result, consumers may see a broader range of milk and other dairy products, including "light" milk with at least 50% less fat than whole, or full-fat, milk and other reformulated milks with reduced fat contents but greater consumer appeal.

"I expect that there are going to be many more milk products for consumers to choose from" says Michelle Smith, a food technologist in FDA's Office of Food Labeling. "This is positive for milk consumption in general, and it's likely that consumers will be able to find a lower fat milk product that they like." (See



Milk's New Names

Old Name	Possible New Names	Total Fat [per 240 milliliters (1 cup)]		Calories per 240 mL
		Grams	% Daily Value	
Milk	Milk	8.0g	12%	150
Low-fat 2 percent milk	Reduced-fat or less-fat milk	4.7g	7%	122
Not on the market	Light milk	4 g or less	6% or less	116 or less
Low-fat 1 percent milk	Low-fat milk	2.6 g	4%	102
Skim milk	Fat-free, skim, zero-fat, no-fat or non-fat milk	less than 0.5 g	0%	80

accompanying article.)

FDA issued a final rule in November 1996 that revoked the standards of identity--the prescribed recipes that manufacturers of a particular food must follow--for many fat-reduced milk and other dairy products. This allowed the agency to bring milk labeling in line with existing labeling requirements for nutrient content claims, such as "fat free," "low fat," "high protein," and others.

Lower fat milk products will still need to be nutritionally equivalent to full-fat milk and provide at least the same amounts of the fat-soluble vitamins A and D as full-fat milk. Vitamins A and D are lost when milk fat is reduced or removed.

"[Milk] is just as nutritional as before," says LeGrande "Shot" Hudson, dairy plant manager for the Landover, Maryland-based Giant Food Inc. "[The milk industry] just changed the name[s] a little."

Joint Effort

FDA's final rule was prompted in part by a petition filed jointly by the Milk Industry Foundation and the Center for Science in the Public Interest (CSPI), a consumer advocacy group, and a separate petition filed by the American Dairy Products Institute. The petitions asked FDA to lift the labeling exemption provided for in the Nutrition Labeling and Education Act of 1990 for lower fat dairy products.

FDA agreed to revoke the standards of identity for low-fat milk and 11 other lower fat dairy products, including low-fat cottage cheese, sweetened condensed skimmed milk, sour half-and-half, evaporated skimmed milk, and low-fat dry milk. These products are now bound by the "general standard" for nutritionally modified standardized foods. This means the nutrients that lower fat milk products provide, other than fat, must be at least equal to full-fat milk before vitamins A and D are added.

FDA also agreed to allow manufacturers to use "skim" as a synonym for "fat free" in the

labeling of dairy products because, the agency concluded, most consumers realize that skim milk means no fat.

The changes do not affect lower fat yogurt products. FDA decided to keep the standards of identity for the time being to further consider manufacturers' concerns about fortifying yogurt with vitamin A, a nutrient found in full-fat yogurt.

FDA, along with the milk industry and nutrition educators, believes the label changes will give consumers more accurate, useful information about milk. Because claims on milk labels will be consistent with claims on other foods, consumers will know, for example, that "low-fat" milk (formerly known as 1% milk) will be similar in fat content to "low-fat" cookies. (Both can provide no more than 3 grams of fat per serving. The serving size for each is listed on their label's Nutrition Facts panel.)

The improved accuracy of milk labeling is particularly important for skim milk, experts say, because "skim" carries a negative connotation for many consumers. "They think it is skimmed of all its good nutrients," says Brad Legreid, executive director of the Wisconsin Dairy Products Association. "That it's flat and tasteless. But that's not it at all."

Or, they view it in the same negative light as dry powdered milk, says Margo Wootan, a senior scientist with CSPI. She coordinates the group's public health campaign to encourage consumers to use milk that provides 4 percent or less of the Daily Value for fat--that is, low-fat or skim milk. She prefers the term "fat-free" to describe skim milk because she says: "It is more recognizable to the public. And "fat-free" better describes the benefits of skim milk."

Dietary Significance

The goal of the labeling changes, as many nutrition experts see it, is to help consumers select milk products that can help them lower their fat and saturated fat intakes to

recommended levels. The Dietary Guidelines for Americans recommends limiting fat to no more than 30 percent of calories and saturated fat to less than 10 percent of calories. There is substantial scientific evidence to show that low fat intakes may help reduce the risk of some cancers, and diets low in saturated fat and cholesterol may reduce the risk of heart disease.

Switching from higher fat to lower fat milk products can have a particularly significant impact on lowering fat and saturated fat intakes because milk plays such an important role in the American diet, CSPI's Wootan says. She says that milk is a major contributor of saturated fat to the American adult's diet. Only cheese and beef contribute more.

Considering that 240 milliliters (one cup) of full-fat milk provides 26 percent of the Daily Value for saturated fat, while fat-free milk provides none, switching from full-fat to fat-free milk can drop saturated fat intake considerably, she says.

"It's an easy way to lower fat intake," she says. "It doesn't take a lot of time. No preparation skills are needed. It takes only five seconds at the dairy case to move your hand to the fat-free [skim] or low-fat [formerly 1 percent] milk. It's a good first step towards healthy eating."

Wootan believes that the revised milk labeling will make especially clear to consumers the difference between reduced-fat (formerly 2 percent low-fat milk) and low-fat (1% low-fat milk). "A lot of people use 2% milk thinking it is the same as 1%," she says, because the previous labels referred to both as "low fat." However, reduced-fat milk provides almost twice the amount of fat and saturated fat as low-fat milk.

The new labels will "show a difference," she says, "and, [I think,] more people will go to drinking 1 percent or skim milk."

New Names in the Dairy Case

But first, they'll need to get used to milk's new names. Joan Taylor, consumer affairs manager for Schnuck Markets Inc., of St. Louis, recalls the confusion that arose when manufacturers began relabeling ice milk as "low-fat" ice cream in 1994, under another FDA rule. The company received a number of calls from shoppers wanting to know why they had stopped selling ice milk, she says. "We hadn't," she says. "We only changed the name."

Some groceries and milk processors plan to educate consumers about the label changes. Schnuck Markets, for example, was planning at press time to post signs at their stores' dairy cases explaining what the new names mean. And its dairy plant planned to label, at least at first, lower fat milk with both the new name, followed by its former name or the milk's fat content. An example might be "reduced-fat milk, contains 2 percent milk fat."

Efforts such as these should help consumers catch on quickly to the new names, but nutrition and industry experts hope the new labels' potential benefits will be longer lasting.

"This is not just a cosmetic change," CSPI's Wootan says. "This is an important strategy to healthier eating." ❖

Raising Milk Consumption

While the new labels may promote greater consumption of the lower fat milk products, some nutrition experts--and industry members in particular--hope the changes will increase milk consumption overall.

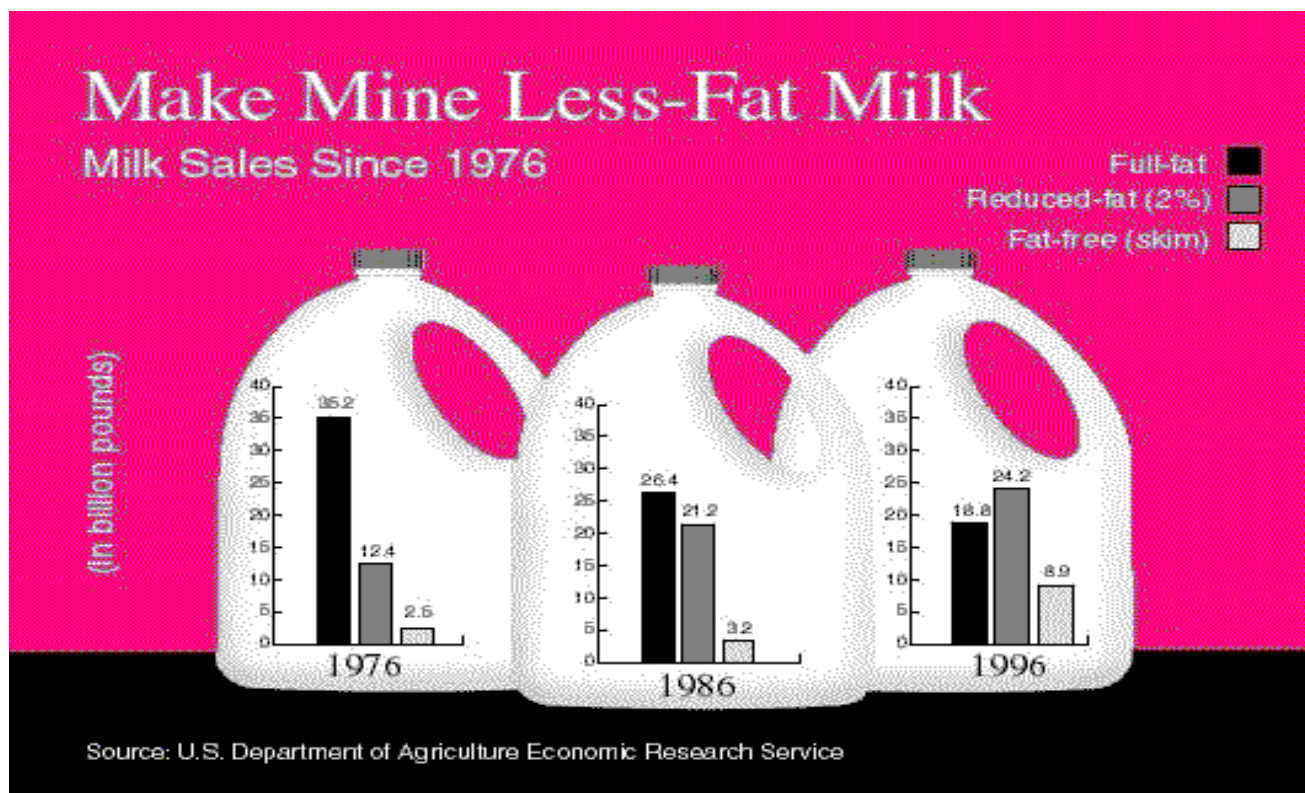
LeGrande "Shot" Hudson, dairy plant manager for Giant Food Inc., in Landover, Md., notes that the industry already has taken steps to entice consumers, especially teens and young adults, to drink more milk. It's undertaken major advertising campaigns and, in an effort to make milk more palatable to people who dislike the taste of plain milk, has begun marketing novel flavored products, such as banana, blueberry, raspberry, strawberry, and mocha milk products.

"We don't all wear the moustache," he says, alluding to the industry's current milk advertisements in which celebrities tout their preference for plain milk.

Michelle Smith, a food technologist in FDA's Office of Food Labeling, believes that milk processors will have even more flexibility to develop products with greater consumer appeal, now that the standards of identity for lower fat milks have been revoked. For example, processors will be able to add fat substitutes, stabilizers or thickeners to give lower fat milks a creamier texture and better sensation in the mouth or coloring to make the products whiter. When added, these ingredients must be listed on the label.

"There are many ways to modify a food," she says. "So, if you come across a reduced-fat product, and you want to know how they did it, look at the ingredient list."

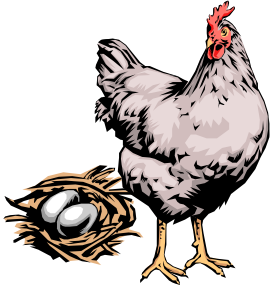
With greater product development comes greater product choices for consumers, she says, and that will allow consumers to make better, lower fat choices that they can enjoy.



Safer Eggs: Laying the Groundwork

Paula Kurtzweil

September-October 1998 FDA Consumer Magazine



The egg--long noted for its high-quality protein and versatility in cooking--is getting a beating like no other.

At stake is its image as a safe and nutritious food.

In recent years, the egg has gained notoriety as a carrier of dangerous disease-causing *Salmonella* bacteria and as a food laden with artery-clogging cholesterol. Many of its best features--like ease of use, good taste, functionality, and low cost--have been lost in the stir.

But various groups, including the Food and Drug Administration and other government agencies, industry members, and nutrition educators, are fighting back. They are seeking to improve the safety of egg production and distribution through regulation and recommendations. They are educating people on the hazards of eating raw and undercooked eggs, urging them to adopt safe egg-handling practices and reminding them of the egg's importance in a healthful diet.

Cracking Down

Because eggs go through many channels and are handled in many ways before reaching someone's plate, FDA and the U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) announced in May 1998 that they would seek to identify "farm-to-table actions" to decrease the food safety risks associated with shell eggs. The agencies said they would consider regulations or guidance to cover egg handling on the farm, in transit, and at the retail level and asked for public comment on such topics as:

- federal quality assurance standards for egg production
- feasibility of large-scale use of an in-shell pasteurization process, a relatively new technology
- incentives to encourage egg refrigeration before transit
- the federal government's role in regulating restaurants and retail stores. Currently, federal agencies provide guidance, such as FDA's model Food Code, a reference for retail outlets on how to prepare food to prevent food-borne illness. FDA encourages states to adopt the Food Code as law.

In the May 19 advance notice of proposed rule-making, FDA and FSIS announced that they would propose regulations "shortly" to improve the safety of eggs. The FSIS proposal would require eggs packed for consumer use to be refrigerated during distribution at a temperature not to exceed 45°F. (7°C.) and to include a label on packages that refrigeration is needed.

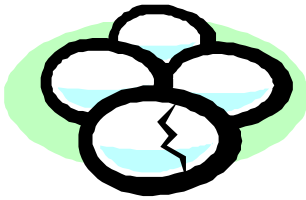
FDA's proposals would require:

- retail food stores and food service establishments to hold shell eggs at a refrigeration temperature of 45 F (7°C)
- safe handling instructions on the package labels of shell eggs that have not been treated to kill *Salmonella*. The instructions might say, for example, that raw eggs may contain harmful bacteria known to cause serious illness, especially in children, the elderly, and people with weakened immune systems. Consumers should be advised to keep eggs refrigerated and cook them thoroughly before eating.

Stopping the Outbreaks

While poultry, meat, fresh produce, and other raw foods also can be carriers of *Salmonella enteritidis* (SE), shell eggs lead the list. According to a study in the 1994 *Journal of Infectious Diseases*, 82 percent of SE outbreaks between 1985 and 1991 in which the vehicle for transmission was known were traced to contaminated shell eggs.

As many as 1 in 20,000 eggs, or about 2.7 million eggs annually in the United States, contains the bacteria, according to USDA. Contamination occurs as the egg develops in the oviduct--the canal through which the egg travels--of an SE-infected chicken or from chicken fecal matter coming into contact with an egg.



FDA and FSIS' pending proposals and any other possible action they may take will help unify or supplement efforts already under way to prevent the spread of SE in eggs. For example, 38 states now require refrigeration of eggs at the retail level. And a number of states, including Ohio, California, Pennsylvania, and Maine and other Northeastern states, along with the United Egg Producers, an egg producers' cooperative, have established voluntary quality assurance programs for egg producers. Participants agree to follow certain practices, which may include,

- cleaning and disinfecting hen houses between flocks
- adopting strict rodent control measures
- washing eggs properly
- refrigerating eggs between transport and storage
- putting in place biosecurity measures.
- monitoring mortality of chickens
- using SE-free chicks and pullets.

Also, the U.S. Animal Health Association, a professional association of veterinarians, has

developed SE reduction guidelines for egg producers.

The Importance of Eggs

There are plenty of reasons to go to these lengths. A chief one is that eggs are one of the cheapest yet most nutritious foods around. For about 10 cents, an egg provides 6 grams of protein and substantial amounts of several important vitamins and minerals, such as vitamins A and B12, folate, thiamin, riboflavin, phosphorus, and zinc. The protein is of the highest quality, higher even than that of milk, meat and fish.

"Eggs are the gold standard of protein," says Liz Ward, a registered dietitian with the Harvard Vanguard Medical Association in Boston and spokeswoman for the American Dietetic Association.

Like meat, fish, milk, and other complete proteins, eggs provide all the essential amino acids needed to support life and growth.

Eggs also have several physical and chemical properties important in cooking and baking. Eggs thicken custards, puddings and sauces. They stabilize mayonnaise and salad dressings. They're often used to coat or glaze breads and cookies. They bind ingredients in foods like meatloaf and lasagna, clarify soups, prevent crystallization in boiled candies and frostings, and serve as leavening agents, helping foods like soufflés and sponge cakes to rise.

"There are a lot of things you can't make without eggs," says Betsy Crosby, a home economist with USDA's Agricultural Marketing Service.

Eggs also are easy to use. Because they can be cooked alone or, in many cases, with other foods relatively quickly, they are a convenient, nutritious food for people on the go and those unable to do much cooking. And, unlike other animal foods, they can keep in the refrigerator for three to five weeks.

Also, because eggs are soft and easy to chew, they are a good substitute for meat and other hard-to-chew protein-rich foods for anyone who has difficulty chewing.

However, because of an egg's cholesterol content--215 milligrams all contained in the yolk--the Dietary Guidelines for Americans recommends using egg yolks "in moderation." Egg whites contain no cholesterol (but all the protein) and can be used freely.

Pinpointing the Problem

State and federal investigators have traced *Salmonella enteritidis* outbreaks to various raw and undercooked egg-containing products, including Caesar salad, homemade Jamaican malt, French toast, lasagna, hollandaise sauce, and baked and sunnyside-up eggs. A major nationwide SE outbreak in 1994 involved ice cream, which, according to FDA's best determination, became contaminated during shipment of the ice cream mix in an improperly cleaned tanker previously used to haul unpasteurized liquid eggs. Also, the ice cream maker failed to repasteurize the ice cream mix after shipment.

Egg dishes made from "pooled" eggs, especially in institutional settings such as nursing homes, have been a frequent culprit. One contaminated raw egg can infect the whole lot when mixed together, for example, in making scrambled eggs.

SE is destroyed by cooking the egg or egg-containing dish to at least 145°F. (63°C.). In most of the SE outbreaks in the United States, the egg products were not cooked to the proper temperature.

Frequently, the eggs involved also were not held at a refrigeration temperature of 45°F. (7°C.) before cooking. Proper refrigeration can help prevent the growth of SE. The cumulative effect of these errors often

causes the outbreak.

In addition to government regulations, efforts under way to stop these errors and subsequent outbreaks include educating consumers, retail food handlers, and food service personnel about proper egg and other food handling.

Technological Advances

Modern technology also may aid in the effort. According to Marilyn Balmer, V.M. D., a consumer safety officer in FDA's Office of Plant and Dairy Foods and Beverages, FDA has reviewed processes for in-shell egg pasteurization, and one of several companies interested in offering it has test-marketed pasteurized in-shell eggs.

The marketability of such eggs is unknown because, home economist Crosby says, "This technology, if perfected, might be a tad expensive." But Charles Beard, D.V.M., Ph. D., vice president of research technology for the U.S. Poultry and Egg Association, points out that in-shell eggs are retailers' preferred product. "Shell eggs get more money [than liquid egg products]," he says.

Other technological possibilities include:

- ionizing radiation, also known as irradiation (see "Irradiation: A Safe Measure for Safer Food" in the May-June 1998 FDA Consumer), to reduce *Salmonella* in shell eggs. At press time, a food additive petition for such a use was under FDA review.
- reducing *Salmonella* in chickens by spraying newly hatched chickens with Preempt, a biotechnology product FDA approved last March that contains 29 bacteria. The bacteria, which the chicks ingest when they peck at their wet feathers, reduce *Salmonella* colonization in the chicks' intestines.

Technology may go a long way towards reducing *Salmonella enteritidis* in eggs, but

Balmer says that, at present, "the problem is multifaceted. That's why the solution has to be a farm-to-table continuum."

Safe Egg Handling

To prevent infection with *Salmonella enteritidis*, follow these rules when buying, storing, preparing, serving, and eating eggs:

- Don't eat raw eggs. This includes so-called "health-food" beverages made with raw eggs, and foods traditionally made with raw eggs, such as Caesar salad, hollandaise sauce, homemade mayonnaise, ice cream, eggnog, and cookie dough, unless the dish was made with a pasteurized liquid egg product or pasteurized in-shell eggs. Egg mixtures made with an egg-milk base cooked to an internal temperature of 160°F. (71°C.) are safe, too. Use a thermometer to make sure the mixtures reach the correct temperature.
- Buy eggs only if sold in the grocer's refrigerated case. Open the carton and check that the eggs are clean and uncracked.
- Store eggs in their carton in the coldest part of the refrigerator, not in the door, and use within three to five weeks. The refrigerator should be set at 40°F. (5°C.) or slightly below.
- Keep hard-cooked eggs, including dyed Easter eggs, in the refrigerator, not at room temperature. Use within one week.
- Eggs should not be frozen in their shells. To freeze whole eggs, beat yolks and whites together. Egg whites also can be frozen by themselves. Use frozen eggs within one year.
- Wash hands, utensils, equipment, and work areas with warm, soapy water before and after contact with eggs and egg-rich foods.
- Don't leave cooked eggs out of the refrigerator for more than two hours. When baking or cooking, take out the eggs you need, and then return the carton to the refrigerator.
- Cook eggs until yolks are firm.

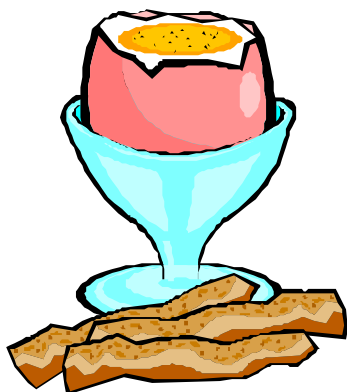
Additional information on safe egg and other food-handling practices is available from:

**Food and Drug Administration
Office of Consumer Affairs
HFE-88
Rockville, MD 20857**

**FDA's Food Information Line
1-800-FDA-4010
202-205-4314 in Washington, D.C.
24 hours a day**

FDA Website: www.cfsan.fda.gov/~mow/foodborn.html

**U.S. Department of Agriculture
USDA's Meat and Poultry Hotline
1-800-535-4555
202-720-3333 in Washington, D.C.
Recorded messages available 24 hours a day. Home economists and registered dietitians available 10 a.m. to 4 p.m. Eastern time, Monday through Friday.
www.fsis.usda.gov/OA/consedu.htm ❖**



Salmonella Threat

Salmonella is commonly found in the intestinal tracts of animals, especially birds and reptiles. (See "The Fright of the Iguana" in the

November-December 1997 FDA Consumer.)

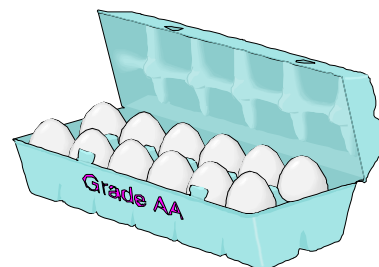
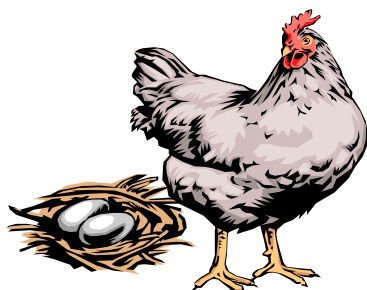
In humans, Salmonella infection can cause salmonellosis, an illness characterized by fever, stomach cramps and diarrhea, which typically develop eight hours to three days after eating a contaminated food or drink. The illness can last as long as seven days, and severe cases may require hospitalization. In some people, it can cause death. A small number of illnesses may develop into recurring joint pain and arthritis.

The degree to which a person becomes sick depends on his or her health status and the number of bacteria ingested. The poorer the health and the larger the number of bacteria, the greater the likelihood for serious illness. People who are most susceptible are children, older Americans, and people with weakened immunity (for example, people with AIDS or cancer).

Salmonella enteritidis is one of the major Salmonella strains showing up in food. Between 1976 and 1994, the proportion of reported Salmonella isolates that were this particular strain increased from 5% to 26%, according to the national Centers for Disease Control and Prevention.

In a year-by-year breakdown by CDC, the number of U.S. cases of Salmonella enteritidis are:

Year	Cases
1985	5657
1986	6036
1987	7052
1988	7063
1989	8466
1990	8734
1991	7755
1992	6578
1993	8071
1994	9866
1995	10201
1996	9566



Massachusetts Department of Public Health's Internet Homepage

Greg A. Tocco, Programs and Policy Coordinator

(<http://www.magnet.state.ma.us/dph>)



The Internet is changing the way the world does business and disseminates information. The Department has embraced this revolution and is making a commitment to provide as much information and services on-line as possible. In the two years, the viewership on the Department's Homepage has increased from 313 to more than 10,000 viewers per month. This increase indicates that the more information the Department offers on-line, the more the Internet is utilized as a method of attaining information and services.

The Division of Food and Drug, Food Protection Program has embraced this new mode of communications by providing the issues of **The Reporter** on-line. Additionally, there are information-packed fact sheets, timely advisories and press releases, and other information resources such as an up-to-date list of Massachusetts Interstate Certified Shellfish Shippers, consumer food safety tips, "Residential Kitchens: Questions and Answers" and "Sanitary Operating Procedures for Massachusetts Cider Mills." Thus, Food Protection Program is able provide viewers with pertinent and important information in a timely and efficient manner.

The Division of Community Sanitation has added items to the Homepage which are particularly helpful to local Boards of Health, such as the Swimming Pool Inspection Report form, the Emergency Condemnation and Order to Vacate prototype letter, and recently amended state sanitary code regulations

The Department will continue to utilize the Internet as a means of disseminating timely and useful information. In addition, the Department plans to expand the Internet's role to the actual delivery of services. The result will be improvements in quality and efficiency for the end-user as well as cost and time savings for the Department. ❖

Mailing List Going Electronic

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